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Regulating the Internet Intermediaries in a Post-Truth World: Beyond media policy?

Introduction

The present moment in media and communications has been called by some the era of ‘platform capitalism’ (Srnicek, 2017) or the ‘attention economy’ (Wu, 2016), in which personal data ‘is the new oil’ (Economist, 2017). There are significant structural reasons to see this particular moment as something deeper. The new platforms are two-sided markets, attracting data-providing consumers at limited costs and selling their tracked attention to advertisers; they hold unprecedented structural market power due to the benefits of ‘network effects’, soaking up the bulk of online and especially mobile advertising; their dominance and reach allows them to make unparalleled investments in new technologies of artificial intelligence, cloud computing and machine learning.

These issues came more fully to public attention during 2016 in the context of the UK referendum on EU membership and the US Presidential election, principally around arguments about ‘Fake News’. The focus by the mainstream media on issues relating to the power of the internet intermediaries over the past twenty-four months has been valuable, but policy solutions have been scarce. Part of the purpose of this article is to address some of the political, policy and regulatory issues which arise, not only as a focus for analysis but also as a trigger to activism. Regulatory intent has been announced at UK, EU and G7 levels (Bowcott, 2017; Chazan, 2017; Reuters, 2017) in respect of demands on the major internet

intermediaries to clamp down on hate speech, terrorist materials including videos, as states seek to re-assert their ‘technological sovereignty’ (Morozov, 2017). Alongside action by the EU’s Competition Directorate against Facebook and Google (European Commission, 2017a, 2017b), this makes it clear that internet intermediaries are not beyond the law and can be regulated. Some of the actors pressing for resolution have come from within established media institutions, including newspapers whose advertising revenue has been affected by the new media, advertising agencies concerned about the inaccurate and opaque metrics served up by major platforms, and advertisers, including governments, concerned about the placement of their advertising alongside terrorist sites and advertisements (BBC, 2017; Tan, 2017; Neff, 2017; Creighton, 2017; Guardian, 2017).

More recently, it has become clear that a wider range of public policy issues was being engaged. While there had been early assessments by US intelligence agencies of foreign interference in US elections by January 2017 (Office of the Director of National Intelligence, 2017), it was not until the autumn of 2017 when facing congressional committees that Facebook in particular ‘owned up’ to the potential extent of Russian use of its platform for advertising and propaganda during the US elections (Facebook, 2017a and 2017b).

Journalists revealed that Facebook had, on the advice of lawyers, removed references to Russia from its initial April 2017 security report (McMillan and Harris, 2017). Aside from the United States, the question of Russian involvement in UK elections or referendums has been raised with Facebook and other social media platforms by law-makers in the UK (House of Commons, 2017b). The important contribution made by Picard and Pickard (2017) in developing ‘essential principles for contemporary media and communications policymaking’, while recognising the importance to states of ‘maintaining legitimacy, preserving order’,

perhaps requires further thinking to take account of the new challenge of digital disinformation campaigns (Patrick, 2017).

The initial light-touch ‘network’ governance of the internet (Collins, 2009) is under challenge, at least in Europe, and we discuss below some of the approaches which are being developed. However, the key platforms such as Facebook and Google are of US origin, and the US debate on these issues is somewhat different (see Carr, 2016). This is essentially a debate about power in the digital age which raises questions about the need for ‘innovative’ ex ante or ‘anticipatory’ regulation (Mansell, 2015; Mulgan, 2017). Media scholars have previously outlined a variety of ways in which internet intermediaries might be brought into the framework of media regulation (see Helberger et al, 2014, 2015 for an exhaustive summary) but the emerging threats to legitimacy and democratic values may require broader treatment.

The ‘duopoly’: Facebook and Google as data controllers and major sources of news

Facebook (which also owns Instagram and WhatsApp) and Google (now rebranded as Alphabet, includes the Google search engine and the YouTube video-sharing platform, among other services) are the ‘new King Kongs’ of online media distribution (Cunningham and Silver, 2013). They hold significant market power in a number of areas. First, their market power originates from advertising revenue, especially online. As the digital-advertising industry is growing strongly - latest figures from the Interactive Advertising Bureau show that the third quarter of 2016 was the biggest ever, with a total of \$17.6 billion spent on digital ads, representing a 20 per cent increase from the same period a year earlier – the alarming news is that almost all of that growth is going to exactly two companies:

Facebook and Google. A study by Enders Analysis (2016) found that Facebook and Google accounted for 90 per cent of the growth in UK digital advertising in 2016. At the other side of the Atlantic, eMarketer (2017) forecast that in the US, digital ad spending will reach \$83bn in 2017, representing an increase of 15.9 per cent on the previous year. Google, which dominates search, is expected to maintain its strategic market power in online advertising and account for 40.7 per cent of US digital ad revenues in 2017, whereas social network Facebook, which rules display through growth in both usage and time spent, will have an ad revenue share of more than 21 per cent.

The growth of online advertising revenues for Facebook and Google appears to have come at the expense of traditional media. Traditional TV viewership is declining and streaming services are on the rise. The rate at which this trend is happening differs along generational lines and geographical areas, but it is indicative that in the US only time spent watching traditional TV from 2010 to 2016 has seen an 11 per cent decrease (Shemenski, 2016). Market ad shares of legacy media such as newspapers, radio and television are constantly falling and some companies (for example, Visual Capitalist, 2016) forecast their slow death in the next few years. Famed technology forecaster Mary Meeker projected that in 2017 internet advertising world-wide would outstrip TV advertising for the first time, cementing Google and Facebook's domination of digital ad dollars (see Baron, 2017).

The goal of media policy, since its inception, has been to preserve the public interest and regulate power, but policy has also been a balancing act between the need to promote the public's needs, government interests, and the demands of the corporate sector. The oftentimes conflicting missions have resulted in tensions between the civil, commercial and public sectors, which have been exacerbated because of the revolutionary nature and intrusion of

social media. The widespread availability of information-communication technologies (ICTs) make it difficult to preserve the legal regime of private property that historically limited flows of communication, so new legal and regulatory controls are required to set limits on what people can do and also address trademark, copyright, patent law, electronic surveillance and personal privacy in the current era.

In addition to being data controllers in the 'data economy', Facebook and Google are major sources of news and information: indeed 'google' is now routinely used as a verb ('to google'), while younger age groups and a growing number of adults get their news via Facebook. Pew Research Centre (2016) found that 44 per cent of US adults got their news via Facebook in 2016, which had taken over from Google as a traffic source for news in 2015 (Ingram, 2015). Established free-to-air broadcasters have expressed concerns about the emerging digital platforms, their impartiality, and their potential control of access to new digital services. Whereas established media organisations, especially broadcast news, have historically built levels of trust with audiences for the accuracy and impartiality of the information they provide, new players have yet to match these values. Google, through its search power, plays an important part in today's consumerist contemporary culture by framing the conditions for users' active 'engagement', while the social network Facebook shapes use of the time that individuals allocate to their connected relationships, with a complex interplay of choices involving various elements of satisfaction and reward.

Mainstream media provides much of the information and news from which Facebook and Google make their money, but they give little back in terms of investment. Coyle (2017b) asks how can the civic role of the media be protected and how can political systems sustain investment in journalism and other forms of cultural content. She says that platforms such as

Facebook ‘go far beyond any other commercial entities in the scale and dominance they have achieved.’

Unpaid digital labour and user data compilation

Big data — the ability to mine and make sense of massive electronic files produced by and about people, things, and their interactions — is at the heart of the business models of Facebook and Google. Big data allows the platforms to offer ‘free’ services to users, financing their operations by enabling advertisers to target audiences with implausible precision (Taylor, 2016). The techniques employed by the two tech giants to collect and monetise their users’ personal data are well documented (see Boyd and Crawford, 2012; Esteve, 2017; Pasquale, 2015). Data are continuously monitored and recorded, stored, merged and analysed algorithmically in order to create detailed user profiles containing information about personal interests and online behaviours. This, in turn, enables targeted advertising which has been termed ‘panoptic sorting’ (see Gandy, 1993a, 1993b), as social media obtain an accurate picture of the interests and activities of their users. The two major internet intermediaries are successfully seeking people’s attention and time, intent on keeping users with them, so that they can monetise their consumption patterns for advertisers and shareholders (Taplin, 2017).

Data, and the ownership of the algorithms which drive its uses and its analysis, enable companies like Facebook and Google to ‘control consumption’ (Thompson, 2017). Facebook even tracks non-users’ web browsing habits (Lomas, 2017a). Facebook and Google’s vast range makes their platforms particularly attractive to advertisers – and their ability to micro-

target audiences, based on the data they have accumulated about users, is at the heart of this. Users are providing their labour free to the internet intermediaries. According to Fuchs (2014: 110) corporate social media sell the users' data commodity to advertising clients at a price that is larger than the invested constant and variable capital. Fuchs also argues (2013) that social media 'prosumers' are double objects of commodification: they are commodities themselves and through this commodification their consciousness becomes, while online, permanently exposed to commodity logic in the form of advertisements. In that sense, internet firms use social network site users in two ways: first, firms treat user-produced 'free' content as raw material for their search engines' cataloguing system; second, the firms' surveillance of users' browsing habits is based on users' tacit permission to allow these firms to track, stockpile, and manipulate the data derived from usage. Facebook and Google are harvesting vast quantities of data, 'surfing' user behaviour (Evans, 2017) and purchasing data from elsewhere (Halpern, 2016). As the Guardian (2017) says, they are 'farming' our data.

A study by Youyou et al. (2014) found that 'by mining a person's Facebook "likes," a computer was able to predict a person's personality more accurately than most of their friends and family'. Separately, there have been suggestions that data acquired for use by commercial organisations could have been made available for political purposes in election and referendum campaigns and questions have been raised as to whether the use of that data has been appropriately reported, for example, to the UK Electoral Commission or the Information Commissioner's Office (ICO) (Cadwalladr, 2017). It is widely accepted that sophisticated data operations were at work in both the Brexit and Trump campaigns, and one of the Leave campaign's key strategists has published his own account of this (Cummings, 2016). Links to companies with experience in international psy-ops - tactics, like propaganda, intended to manipulate opposite views - form part of this discussion (Cadwalladr, 2017).

Impact on the private and public spheres and on democracy

The changing nature of communicative spaces under ‘surveillance capitalism’ (Zuboff, 2016) has been widely discussed. There are a number of privacy issues that arise through the use of personal data, such as the lack of valid consent given by their users, the insufficient access and control given to users over their personal information, and the risk of re-identification of anonymous personal data (Esteve, 2017). Privacy has risen into public discourse with the revelations of former CIA operative Edward Snowden, who exposed a secret, mass surveillance programme by the US National Security Agency (NSA). The US had to apologise to foreign leaders including the German Prime Minister Angela Merkel who had been victims of these intrusions. The series of surveillance revelations sparked by Snowden's release of NSA classified documents to journalists at the *Guardian* and the *Washington Post* in June 2013 coincided with the NSA's launch of its massive data storage centre located in Utah and dedicated to amassing big data for surveillance ends, in the US and beyond (Iosifidis and Wheeler, 2016). NSA's establishment of this new data centre, designed to intercept, decipher, analyse and store vast swaths of the world's communications, inevitably provoked controversy at the time the public was becoming more aware of the scope of the agency's surveillance programs. There are many voices claiming that this exposure is set to alter policy discourse about privacy in the USA and abroad (see Epstein et al., 2014: 144). While different forms of resistance against mass surveillance seem to have developed since the Snowden revelations, the growth of data collection and storage practices continues. Despite its denials, the NSA has been charged with having pioneered a ‘cloud-centric’ technology that enables outside agencies ‘reach remotely into its enormous data pools’,

including travel documents, internet searches, online purchases, health records, and so on (Semerad, 2013).

While there has been much attention on internet surveillance by government agencies, focus on surveillance by private corporations often goes unremarked. The process of data collection by private companies online and offline is not well understood by the public, although increasingly issues such as the privacy of peoples' correspondence when using online services such as email, text messaging, search and social media, the use of location tracking, and micro-targeting of advertisements are attracting more attention. There is an unequal relationship in play: people join networks because their friends are members of them, or because they need to access information, and the details of membership are obscured in long Terms of Agreement which usually go unread. There are now some signs of push-back: recently, for example, the Canadian Supreme Court has said that the relationship between users and Facebook rests on a 'grossly uneven bargaining power between the parties' (Canadian Broadcasting Corporation [CBC], 2017). This refrain is mounting, and not only from individuals: as Ganter and Neilsen (2017) have shown, the imbalance in relations with Facebook may be an ever-present strategic concern in major media companies.

This is not to deny the social uses of networks, or indeed their value in organised political protest and rebellion - the enhanced connectivity experienced between Facebook, Google and Twitter users has helped activate and deepen ties during uprisings. They have changed the nature of the public sphere. Social media platforms are frequently used to call networked publics – publics that are constructed by networked technologies (Boyd, 2010, 2014) - into being and into action during periods of political instability. In regimes where media are controlled, inaccessible, or not trusted these platforms force a radical pluralisation of news

dissemination and democratic processes (Dahlberg, 2009). But while much has been written about the power of networked protest in places like Turkey (Gezi Park protests) or Egypt (where social media sites became the tools of a protest movement that ultimately helped unseat the government), some commentators have analysed its weaknesses as well (Iosifidis and Wheeler, 2016; Tufekci, 2017).

However, social media have also become platforms for the rapid circulation of what has become known as ‘Fake News’ (for definitions, see Wardle, 2017). There has been considerable focus in the context of both the 2016 US Presidential election and the 2016 UK referendum on EU membership as to what extent fake news had an influence on the outcomes (Norris, 2016; House of Commons, 2017a; Iosifidis and Wheeler, 2018). This is not the place to analyse in detail the Twitter output of the successful US Presidential candidate Donald Trump (for an early attempt, see Fuchs, 2017) nor the Brexit campaign in the UK, whose repeated focus on xenophobic claims about Turkish citizens and their likely entitlement to enter the UK, coupled with the false pledge about Brexit leading to an additional £350 million per week for the NHS, were widely spread on digital media (see Cummings, 2017).

What is certain is that fake news pays. There are clear economic incentives for producers of fake news, and these relate to the level of engagement that social media users undertake (Tambini, 2017). Fake news websites can raise money from advertising on their sites through, for example, Google AdSense or through Facebook advertising on their Pages. BuzzFeed identified 140 pro-Trump fake news websites being run from the Macedonian town of Veles: their creators were ‘responding to straightforward economic incentives’ (Silverman, 2016). In other words, they were being run for the sole purpose of generating revenue for their creators. There is an industrialisation of fake news in certain quarters, with what are called ‘troll

factories' (Stahle, 2016), and also the use of propaganda bots on social media. More likes, more shares, and more clicks lead to more money for advertisers and platforms (Tambini, 2017). The way in which Facebook's algorithm works has contributed to this process. In 2012, Facebook introduced the 'share' button: not long after that, fake news sites start to proliferate, noting that people share without checking, particularly on mobile devices; by 2013 Facebook followed Twitter in using hashtags to link items on specific subjects and introduced a Trending feature (Kantrowitz, 2016).

What Facebook wanted was to ensure people stayed on Facebook as long as possible—and that meant their News Feed needed to be 'interesting and relevant'—and in practice that meant reinforcing their views, not confronting them. Facebook's News Feed algorithm, regularly updated, took into account thousands of factors to determine what shows up in any one user's Feed, including relationship proximity to other people and engagement with their posts, and mass engagement with specific posts (Luckerson, 2015).

Facebook's Trending feature had been curated by people we would ordinarily call 'editors'. In May 2016 Gizmodo published a story stating that former Facebook employees had suppressed news from conservative American sites (Nunez, 2015). Zuckerberg allegedly had to re-assure conservative publishers that there would be no bias against them, and human monitoring was reduced (Bloomberg, 2015). The implication of all this is that the Facebook algorithm reinforces 'confirmation bias'—we are more likely to click on and link to material which appears to confirm our own views and interests. This is not new. In the classic text *Public Opinion*, Lippmann (1921: 126) pointed out how one tends to believe in the absolutism of one's own views: 'for while men are willing to admit there are two sides to a

“question”, they do not believe that there are two sides to what they regard as a “fact”. For Lippmann, the basic problem with democracy was the accuracy of news as people make up their minds before they define the fact. Facebook itself confirmed that ‘friends and family come first’ (Facebook, 2016): with one Facebook executive stating ‘stories in News Feed are ranked—so that people can see what they care about first, and don’t miss important stuff from their friends....more and more people will use Facebook, they’ll spend more time on it and that’ll be good for them, good for Facebook and good for publishers’ (Mosseri, 2016).

There is certainly evidence that the algorithms underpinning Facebook’s News Feed, and Page Rank, an algorithm used by Google Search to rank websites in their search engine results, decrease the diversity of news sources that people see, reinforcing confirmation bias and contributing to what has been called a ‘filter bubble’ effect (Pariser, 2012). As Tufekci said in May 2016: ‘Facebook researchers conclusively show that Facebook’s newsfeed algorithm decreases ideologically diverse, cross-cutting content people see from their social networks on Facebook by a measurable amount’ (Tufekci, 2016). Undoubtedly, Facebook and Google are major sources of news and information, but to assume from this that individuals cast their votes because their views were shaped by the news they saw in their Facebook feed is too simplistic, and indeed other studies challenge this (Hampton and Hargittai, 2016; Dutton, 2017). Recent research has found that broadcast and cable television remains the most important source of news for US voters (Allcott and Gentzkow, 2017). Digital media and social media were important but not dominant sources of news and information.

As news stories are spread by other Facebook users, knowledge of the original news source diminishes radically (Reuters Institute for the Study of Journalism [RISJ], 2016). This may

not be surprising, since there is no branding difference in the Facebook News Feed between fake news sites and established and respected news outlets (Hern, 2016). Nor, of course, is there branding in Google searches, meaning that fake news can vie with real news for top spots, with no difference accorded to trusted established media organisations in the branding compared to, for example, holocaust deniers (Cadwalladr, 2016). In the week following the US Presidential election, after days of criticism, both Facebook and Google took some action to address this issue (Nicas and Seetharaman, 2016).

Drivers of regulatory action

A variety of media interests have sought to challenge the market power of Facebook and Google. First came the advertising industry, with a speech by the Chief Brand Officer of Procter and Gamble to the Interactive Advertising Bureau in January 2017 (Neff, 2017), which was identified as a turning-point by the chair of the House of Commons Select Committee on Culture, Media and Sport at the 2017 Oxford Media Convention. A wide range of advertisers soon after withdrew advertising from YouTube following an expose that programmatic (algorithmically-driven) advertising was placing advertisements next to terrorist or other illegal content (Mostrous and Dean, 2017; Solon, 2017; Vizard, 2017). The News Media Alliance in the US is pressing for a special ‘anti-trust exemption’ to allow news organisations to band together to negotiate collectively with the duopoly on technology, advertising and revenue-sharing (Stangel, 2017). Facebook has had to revise its advertising metrics regularly (Chaykowski, 2016), and the chief executive of the New York Times has said that ‘the world of digital advertising is a nightmarish joke’ (Morrissey, 2017). In the UK, the Press Gazette has launched a well-supported ‘duopoly’ campaign about the power of the two tech titans (Ponsford, 2017). The News Media Association in the UK is calling for a

Competition and Markets Authority examination of the digital advertising market and a review of the status of Facebook and Google in terms of media law. Formal and informal alliances are therefore surfacing to attack the duopoly's dominance – and the engagement of the advertisers is particularly significant, as they have the power to threaten the revenues of the duopoly and significantly shift the balance of the political economy of digital media.

So, what sort of remedial action is needed? The evidence of exploitation of social media infrastructure by foreign espionage agencies, terrorist organisations, and alt-right racist and fascist organisations (Patrick, 2017) provides a direct challenge to the institutions of liberal democracy and the workings of democratic states. Some suggest that social networks and search are 'natural monopolies' (Morozov, 2015), but Foster (2012) has argued that it is 'unlikely that any digital intermediary operating in the UK would currently be found to be an "essential facility"', meaning that they would not be classed as such. That, however, was five years ago, before the duopoly had taken as large a share of advertising revenue as it now has. Coyle suggests that certain platforms have effectively become utilities, and concludes that any regulatory burden 'needs to fall on the platforms gaining the surplus in this market' (Coyle, 2016b). In 2018, the House of Lords Select Committee on Artificial Intelligence declared that companies such as Facebook and Google were 'data monopolies' and in her evidence to that committee the UK Information Commissioner referred to them as 'information monopolies' (House of Lords, 2018: 44-46). The House of Lords committee called for the UK Government and the UK Competition and Markets Authority to review proactively the use 'and potential monopolization' of data by the big technology companies (House of Lords, 2018: 46). The UK House of Commons Select Committee on Digital, Culture, Media and Sport also argued that 'powerful tech companies such as Facebook,

Twitter and Google' behave 'as if they were monopolies in their specific area' (House of Commons, 2018).

Over time, Facebook's founder, Mark Zuckerberg, has referred to Facebook as 'a social utility' (Reagan, 2009) and in his recent manifesto, regularly referred to it as 'social infrastructure' (Zuckerberg, 2017). There is no doubt that Facebook has an impact on media markets or that it has many of the characteristics of a media company. But perhaps we should take Zuckerberg at his word and accept that Facebook – and indeed Google - are social utilities and forms of social infrastructure. Utilities, after all, are regulated (Boyd, 2010) – and so is critical infrastructure (Picard and Pickard, 2017). Indeed, it is the challenge that the infrastructure of intermediaries presents to state security and public safety, in respect of criminal, extremist and terrorist networks, that has provoked the new focus on their responsibilities. It may be that we should now create a new legislative category of 'information utilities' (Andrews, 2017b) which are subject to clear reporting responsibilities, and potentially subject to stronger state powers of intervention, akin to those imposed on dominant players such as telecommunications companies in a variety of jurisdictions over recent decades. Former Ofcom regulator Robin Foster has outlined a series of ways in which a regulatory framework might be developed to ensure plurality and transparency of decisions by information intermediaries with some 'statutory underpinning' (Foster, 2012). The situation is more urgent now than when Foster was writing, given the increasing dominance of the digital advertising market by Facebook and Google and their increasingly powerful hold over data.

Aside from issues of state security and democratic legitimacy, the areas of policy contestation are varied as Helberger et al. (2014, 2015) have suggested. First is the question of monopoly and anti-trust (Moore 2016). Coyle (2016a) and others have warned that competition law has not necessarily kept pace with the emergence of the platform economy, a view endorsed by the House of Commons Select Committee which states that ‘the basis of competition policy with regard to monopolies’ has traditionally been ‘the issue of consumer detriment’, whereas different questions arise when the service is provided free, in exchange for access to consumer data (House of Commons, 2018). The European Commission’s Competition Directorate has emerged as the leading source of regulatory challenge to the duopoly, levying significant fines (European Commission 2017a, 2017b), and the EU Competition Commissioner has said that the question of data, and algorithmic sorting, is an area which competition authorities need to consider (Vestager, 2018a and 2018b). In the 2000s the EU acted against Microsoft in relation to its Windows monopoly being bundled with its web browser. It appears that European antitrust agencies have taken a tougher line on responsibility of powerful online companies than their American counterparts, whose prevailing thinking is that these firms should be left to innovate: recent decisions in the US by the FCC in respect of net neutrality and Congress in respect of data protection do not suggest optimism for regulatory action there. Protection of the public interest calls for fair and open competition, guarantees for consumer choice, as well as citizen access to diverse products and services. Competition reviews of the digital advertising market are one approach: a new focus on the market for data, and competition issues related to privacy, as the president of the German anti-trust authority has suggested, may be another (Tiku, 2017). Some, even free market proselytisers, have gone so far as to say that Facebook may need to be broken up, with divestment of WhatsApp and Instagram being possible courses of action (Thompson, 2017). It is also worth remembering that the forms of corporate governance adopted by many Silicon Valley

companies place powers in the hands of the company founders (Lublin and Ante, 2012). EU intervention represents to a degree a re-assertion of technological sovereignty over cyberspace.

The second area relates to the need to broaden the scope of media and internet legislation to take account of the specific nature of the ‘information intermediaries’ (Moore, 2016).

Facebook, for example, has always denied that it is a media company: if not, what is it?

Currently, for example, Facebook and Google have effectively the same status as Internet Service Providers (ISPs) under US (Communications Decency Act, 1996) and EU law (the E-COMMERCE Directive 2000/31/EC of 8 June 2000). Under UK Communications law, Ofcom is unable to regulate Facebook and Google for similar reasons, although Ofcom’s chief executive has said that the regulator is now embarking on a possible regulatory framework (White, 2018). New definitions may be needed within communications legislation to address the role of the information intermediaries and distinguish them from ISPs. What Collins (2009) calls the ‘myths’ of internet governance may have been sustainable before the smartphone, but the collapse of advertising in favour of the duopoly (see Kaiser, 2014; Evans, 2016) indicates the unintended consequences of current laws and the lacuna presented, in contrast to the ex-ante actions relating to access which were taken in the UK and Europe on the road to the roll-out of digital television, such as ex ante harmonisation of standards (see Foster, 2012). There is a new hate-speech law in Germany under which platforms could be fined 50 million euros (BMJV, 2017); the French National Digital Council has held a consultation on the regulation of platforms (Conseil National de Numerique, 2017) and the French National Assembly has been discussing a law on ‘false information’ (Assemblée Nationale, 2018). The European Commission (EC) has produced guidelines for ‘online platforms’ to increase the proactive prevention, detection and removal of illegal content

inciting hatred, violence and terrorism online (EC, 2017c). In terms of Fake News, the EU's High-level group (EC, 2018) has produced recommendations which offer proposals for countering fake news and disinformation without introducing content censorship, suggesting that current legislation on fake news and disinformation is broadly sufficient at this point (EU, 2018). New copyright proposals currently under discussion, may lead to further moves away from the established Information Society-era consensus (Sweeney, 2018) of the mid-1990s. Some (for example, Smith 2017) object to 'regulating the internet', forgetting that net neutrality rules were a form of regulation to support diversity of content on the internet (Carr, 2016), that the focus here is not on the internet per se but on the monopoly gatekeepers of the mobile environment, and that if legal sector-specific regulation does not occur, then regulation by Wall Street is usually the outcome.

Third, there is the question of how to support independent Public Service Media (PSM) both nationally and locally. A number of proposals have been brought forward (Media Reform Coalition, 2016; Bell, 2017). The need to sustain existing trusted sources of PSM like the BBC remains paramount. As Bell (2017) mentions, 'independent journalism requires funding that is independent of individuals or corporations, has a long-time horizon built into it, and offers complete independence and as much stability as possible'. The BBC and many other PSM are also institutions which support local production and promote indigenous content output, which in the main tend to produce or commission more original programming than non-PSM (Trappel et al, 2015).

The articulation of a public interest framework in a regime of social media governance has to take into account a range of issues. Matters which are now clearly on political agendas in

Europe include the role of the internet intermediaries in respect of addressing hate speech, violence and harassment (Fioretti, 2017), child pornography (Lomas, 2016), their role in respect of piracy and abuse of copyright (Fortune, 2016), abuse of existing data regulations (Booth, 2017); their role in facilitating the distribution of terrorist propaganda (Mostrous and Dean, 2017; Solon, 2017). Protection of minors has gained renewed interest in the online world with an attempt to define enhanced safeguards for user data, the vulnerability of minors to sexual predators, their exposure to hate speech, as well as online bullying (Iosifidis and Wheeler, 2016). Some issues, such as the use of data for targeted electoral advertising, may cross regulatory boundaries (see Andrews, 2017a; Tambini et al., 2017). Other emergent issues include the regulation and governance of data in the age of algorithms and artificial intelligence (Royal Society, 2017).

Conclusion: a developing agenda

This is an emerging agenda whose intensity has grown since the US Presidential election and the moral panic over ‘Fake News’. Moral panics have their uses. We are not convinced ourselves that all of the issues, including the impact of peer-sharing on media distribution, or the impact of algorithmically-based persuasion techniques in the new field of micro-targeted advertising, are sufficiently well-researched as yet. What we are clear about is that the rise of platforms represents a structural change in the political economy of the media. The oligopoly structure of today’s capitalist media ecology results in unprecedented corporate and political power of just a few large multinational companies, including Google and Facebook, that monetise human effort and consumer assets in search for profits. This not only affects competition but also limits the liberal freedoms of speech and expression.

Cloud technologies, big data and algorithms are a reality, but much will depend on how we deploy and use these technologies and, above all, how we regulate the platform economy in order to promote the public interest. Some governments, like the German one, introduced in October 2017 content rules that require social network sites to take down fake news and hate speech within 24 hours or face fines (Lomas, 2017b), while in the US some senators favour the so-called ‘Honest Ads Act’ as a viable solution for digital political advertising (Zanger, 2017).

The pace of these issues has produced some excellent research work that is being undertaken, both through conventional academic routes, think tanks and others. Fuchs and Sandoval (2015), for example, suggested taxing large media corporations and channelling this income into non-commercial media in order to enhance visibility of alternative voices. Wu (2016) argued that social media like Facebook should serve the public (rather than their own interests) by becoming ‘public benefit corporations’. Napoli and Caplan (2017), echoing Deuze (2007), favoured the articulation of new or modified frameworks that reflect the hybrid nature of social media platforms – content producers, but also investors in platforms for connectivity. But more ideas are needed. We argue here for a new category of ‘information utilities’ which would encompass truly dominant internet intermediaries such as Facebook and Google. We take seriously Schlesinger’s statement some years ago that ‘while there is certainly an academic network interested in policy issues in the UK, it is very small relative to the size of the research community as a whole, and few of its members are in a position even minimally to affect debate’ (Schlesinger, 2009). This is a moment for research, but also for activism.

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